

IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF NORTH CAROLINA  
WESTERN DIVISION  
CASE NO. 5:21-cv-0137-FL

360 VIRTUAL DRONE SERVICES )  
LLC and MICHAEL JONES, )

Plaintiffs, )

v. )

ANDREW L. RITTER, in his official )  
capacity as Executive Director of the )  
North Carolina Board of Examiners for )  
Engineers and Surveyors; and JOHN )  
M. LOGSDON, JONATHAN S. CARE, )  
DENNIS K. HOYLE, RICHARD M. )  
BENTON, CARL M. ELLINGTON, JR, )  
CEDRIC D. FAIRBANKS, BRENDA L. )  
MOORE, CAROL SALLOUM, and )  
ANDREW G. ZOUTWELLE, in their )  
official capacities as members of the )  
North Carolina Board of Examiners for )  
Engineers and Surveyors, )

Defendants. )

**AFFIDAVIT OF ANDREW  
RITTER**

I, Andrew Ritter, being first duly sworn, depose and say as follows:

1. I am over the age of 18, have personal knowledge of all matters in this affidavit, and am legally competent to testify.

2. I am employed by the North Carolina Board of Examiners for Engineers and Surveyors (the "Board") as the Executive Director.

3. North Carolina regulates land surveying through its Engineering and Land Surveying Act (the "Act"). The Act establishes a State Board of Examiners for

Engineers and Surveyors (the “Board”) to administer the provisions of the Act. *See* N.C.G.S. § 89C-4.

4. The Legislature designated the practice of Land Surveying as a profession. *See* N.C.G.S. § 89C-3(7)(a).

5. “Land surveying encompasses a number of disciplines including geodetic surveying, hydrographic surveying, cadastral surveying, engineering surveying, route surveying, photogrammetric (aerial) surveying, and topographic surveying.” *See* N.C.G.S. § 89C-13(b).

6. “The Act prohibits any person from practicing or offering to practice land surveying in North Carolina without first being licensed by the Board.” [ECF Doc. 1 at ¶ 36; N.C.G.S. §§ 89C-2 and 89C-23].

7. The alleged unlawful practice by an unlicensed person shall be subject to Board investigation. *See* 21 NCAC 56 .1302.

8. In early 2019, the Board mailed to Michael Jones and 360 Virtual Drone a notice that the Board “had initiated an investigation concerning charges that 360 Virtual Drone Services, LLC is practicing or offering to practice surveying without a license as required by F.S. 89C.”

9. During the investigation, Plaintiffs Michael Jones and 360 Virtual Drone admitted that it had advertised it had “experience” in providing services for “Mapping and Surveying.”

10. During the investigation, Plaintiffs Michael Jones and 360 Virtual Drone reported that it had offered to provide orthomosaic maps (measurable maps).

11. The Board mailed to Michael Jones a letter dated June 13, 2019, stating that, after conducting an investigation, “the Board’s Review Committee has determined that there is sufficient evidence to support the charge that 360 Virtual Drone Services, LLC is practicing, or offering to practice, surveying in North Carolina, as defined in G.S. 89C-3(6) without being licensed with this Board.”

12. Plaintiffs were placed on notice that practicing, or offering to practice, land surveying in North Carolina without being licensed with the Board is a violation of the Act.

13. At no time has the Board initiated any enforcement proceedings against Plaintiffs Michael Jones and 360 Virtual Drone.

14. Plaintiff 360 Virtual Drone testified that it never provided the service of orthomosaic maps prior to receiving the notice dated June 19, 2019. However, Plaintiff 360 Virtual Drone testified that it did produce one exemplar of an orthomosaic map in PDF form to a potential customer for marketing purposes. The PDF map did not have any measurable information.

15. It is the position of the Board that taking aerial photographs for the purpose of producing a PDF picture without measurable information is not the practice of land surveying. As such, the Board disavows any intent to initiate enforcement proceedings against Plaintiffs based on the act of producing a PDF image of a map that does not contain measurable information.

16. The Board actively updates and publishes policies to include or exclude activities that fall within, or outside, the definition of the practice of land surveying. A copy of the inclusion/exclusion list is attached hereto as Exhibit A.

17. It is the position of the Board that the act of producing an aerial photograph, without measurable information, that includes lines indicating the approximate position of property lines for marketing purposes is not the practice of land surveying. As such, the Board disavows any intent to initiate enforcement proceedings against Plaintiff based on the act of producing an aerial photograph, without measurable information, that includes lines indicating the approximate position of property lines for marketing purposes.

**FURTHER, THE AFFIANT SAYETH NOT.**

This the 24<sup>th</sup> day of March, 2022.

Andrew Ritter

Wake County, North Carolina

Sworn to and subscribed before me

this the 24<sup>th</sup> day of March, 2022.

Cora S. Houston, Notary Public



My Commission Expires: 1-1-2026

## GIS Inclusions/Exclusions Guidelines - April 2008, Revised October 2011

### North Carolina Board of Examiners for Engineers and Surveyors

This chart, while not all inclusive, assists in determining items of GIS data that are included or excluded from the definition of Land Surveying in G.S. 89C-3(7). The definition includes all location data that is issued for an authoritative purpose. Authoritative shall mean presented as trustworthy and competent for reliance upon by the public or if provided to a stated accuracy.

<u>Board Description</u>	<u>GICC Data Layer Description</u>	<u>Land Surveying Committee Responses</u>
<b>Orthophotography</b>	Large-scale scanned and rectified aerial photographs	Inclusion
<b>Cadastral</b>	County-based private and public property boundaries including easements	Inclusion
<b>Roads</b>	Centerlines, including rights-of-way	Inclusion
<b>Municipal Boundaries</b>	City/town boundaries	Inclusion
<b>County Boundaries</b>	County borders	Inclusion
<b>ETJs</b>	Extra-territorial jurisdictions – areas not in a municipality, but under authority of the city or town	Inclusion
<b>Surface Waters</b>	Locations and names of streams, rivers, lakes, ponds, etc., including mean high water marks	Inclusion - Locations and names of streams, rivers, lakes, ponds, etc., including mean high water marks and when the survey is done to determine authoritative location of stream, waterway or location of mean high water.
<b>Geodetic Control</b>	Horizontal and vertical survey control locations	Inclusion
<b>Elevation</b>	Ground elevations (depicted as contours, X/Y/Z points, elevation models, TINs?)	Inclusion
<b>Land Use</b>	Cadastral-based land use	Exclusion
<b>Land Cover</b>	Statewide land cover - 1996	Exclusion
<b>Flood Zones</b>	Areas inundated by flood waters (1% annual chance, .2% annual chance, flood ways)	Inclusion
<b>Soils</b>	Soil Survey Geographic (SSURGO) database produced by US Dept. of Agriculture, Natural Resources Conservation Service	Inclusion if used to determine authoritative location of soils. Determination of soils to be done by Soil Scientists.
<b>Public Lands</b>	Non-taxable lands maintained in county cadastral databases	Inclusion
<b>Railroads</b>	Locations of railroad lines including rights-of-way	Inclusion
<b>Airports</b>	Airport/airfield property boundaries and easements	Inclusion
<b>Schools</b>	Point locations of public and non-public grade schools	Exclusion
<b>Colleges/Universities</b>	Point locations of state universities and private colleges and universities	Exclusion
<b>Hospitals</b>	Point locations of hospitals	Exclusion
<b>Storm Surge Inundation</b>	Estimated coastal areas inundated by hurricane storm surge	Inclusion for PEs and PLSs. Models are developed by PEs using data collected by PLS.
<b>Surface Water Intakes</b>	Point locations where communities draw raw water from a lake, river, or stream, treat it, and distribute treated water to customers	Exclusion
<b>NPDES</b>	National Pollutant Discharge Elimination System -locations of individually permitted wastewater discharged into surface waters	Exclusion unless federal, state or local authority requires survey.
<b>Police Stations</b>	Point locations of police stations	Exclusion
<b>Fire Stations</b>	Point locations of fire stations	Exclusion
<b>Landfills</b>	Point locations of municipal/county landfills	Exclusion
<b>Watersheds</b>	Water supply watersheds	Inclusion
<b>Wetlands</b>	Wetlands areas from the US Fish and Wildlife Service, National Wetlands Inventory	Inclusion

<b>Hazardous Disposal Sites</b>	Areas identifying locations of uncontrolled and unregulated, hazardous waste sites (formerly called superfund sites).	Inclusion
<b>Building Footprints</b>	Perimeter outlines of buildings	Inclusion when authoritative location is required, such as Land Title Surveys, Brownfield Surveys, etc.
<b>Future Land Use</b>	Cadastral-based, potential land use based on current zoning	Exclusion
<b>Water Lines</b>	Water pipe distribution network and accompanying features	Inclusion
<b>Sewer Lines</b>	Sanitary sewer pipe network and accompanying features	Inclusion
<b>Stormwater Lines</b>	Stormwater network and accompanying features	Inclusion
<b>NC House Districts</b>	Boundaries of NC House Districts	Exclusion
<b>NC Senate Districts</b>	Boundaries of NC Senate Districts	Exclusion
<b>US Congressional Districts</b>	Boundaries of US Congressional Districts	Exclusion
<b>Census Boundaries</b>	2000 US Census boundaries for tracts, blocks, and block groups	Exclusion
<b>Power Transmission Lines</b>	Transmission network and accompanying features	Exclusion for inventory applications. Inclusion where survey is for authoritative location or a stated accuracy.
<b>Natural Gas Pipelines</b>	Transmission network and accompanying features	Exclusion for inventory applications. Inclusion where survey is for authoritative location or a stated accuracy.
<b>Septic Tanks</b>	Point locations of septic features	Exclusion for inventory applications. Inclusion where survey is for authoritative location or a stated accuracy.
<b>Telecommunication Lines</b>	Telephone, cable television, and other communication features such as towers	Exclusion for inventory applications. Inclusion where survey is for authoritative location or a stated accuracy.
<b>Wells</b>	Point locations	Exclusion for inventory applications. Inclusion where survey is for authoritative location or a stated accuracy.
<b>Mineral Rights Boundaries</b>		Inclusion if for authoritative location or stated accuracy of the boundary.
<b>Mining Resources</b>		Exclusion
<b>Greenways</b>		Inclusion when the survey is to determine the fee simple or easement corridor of the greenway.
<b>Sidewalks</b>		Exclusion
<b>Cemeteries</b>		Exclusion if general point location for inventory purpose of locating cemetery. Inclusion if the boundaries of the cemeteries are being determined or established.
<b>Archaeological Sites</b>		Exclusion
<b>Historic Sites and Structures</b>		Exclusion

**CERTIFICATE OF SERVICE**

I hereby certify that I have this day served a copy of the **AFFIDAVIT OF ANDREW RITTER** upon all parties to this action by email addressed as follows:

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This the 25<sup>th</sup> day of March 2022.

/s/ Douglas W. Hanna  
Douglas W. Hanna, NCSB #18225